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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,904	06/24/2003	David J. Schuessler	33915-03410	4886

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EXAMINER

MACKEY, JAMES P

ART UNIT

PAPER NUMBER

1722

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/831,783

Applicant(s)

MCKENZIE ET AL.

Examiner

Laura C Cole

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 33-39 and 41-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 33-39 and 41-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 01 November 2004 has been entered.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any

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inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 33-35 and 39 are rejected under 35 U.S.C. 103(a) as obvious over Sharp, USPN 5,297,512.

Sharp discloses a vibrating and ultrasonic sound emitting grooming device that comprises a housing (Figure 1), a gripping means (Figure 1 (19)), a cleaning head (Figure 1) that is adapted to be removably mounted to the housing wherein the head is capable of being interchangeable (as it is attached by a "friction fit", Column 2 Lines 35-41), a transducer means mounted in the housing for oscillating (Figure 1 (40)), and a power supply means which is mounted in the housing (Figure 1 (46)). The gripping means is at a proximal end while the cleaning head is at a distal end (Figure 1). The cleaning head is in the form of bristles (Figure 1(28)). The transducer means has a frequency of 30 kHz (Column 3 Line 9). The average oscillating frequency is 30 kHz (Column 3 Line 9), which falls into the range of 1000 Hz to 100 kHz. Sharp does not disclose having a cleaning head surface area greater than 6.25 cm<sup>2</sup>, however Figure 1 indicates a finger defining a scale for the size of the device indicating that the area is very likely greater than 6.25 cm<sup>2</sup>.

It would have been obvious to one of ordinary skill in the art to construct a cleaning head for a sonic surface cleaner that is used for a cleaning a pet's coat to have a cleaning head surface area greater than 6.25 cm<sup>2</sup> because it would be desirable to have a larger cleaning surface area to reduce the time it takes to clean an area, to reduce the human effort in cleaning a large surface, and because it is most efficient for cleaning a large area. Furthermore, MPEP 2144.04 IV A states "In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device."

3. Claims 33-35, 36, 38-39, 41-51, and 55 are rejected under 35 U.S.C. 103(a) as obvious over Sawyer, USPN 3,357,033.

Sawyer discloses a sonic surface cleaner that comprises a housing (Figures 1-3), a gripping means (Figure 1 (12)), a cleaning head (Figures 1-3 (30)) that is adapted to be removably mounted to the housing wherein the cleaning head is interchangeable (Column 2 Lines 52-57 and Column 3 Lines 33-41), a transducer means mounted in the housing for oscillating (Column 4 Lines 17-22 disclose that the energy generated is "transformed" into sound waves and releases that energy at the surface as sonic Column 4 Lines 22-36) that is of a frequency from about 1000 Hz to about 100 kHz in that the wave energy is in the

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*lower sonic range* and is analogous to wave energy (Column 4 Lines 51-72; the entire sonic range is between 15Hz and 10,000Hz according to <http://www.tpub.com/neets/book10/39e.htm> , so therefore the lower sonic range would be approximately the lower half of the range, 15Hz to about 5,000 Hz which is included in the range of 1000Hz to about 100kHz), and a power supply means (from wires (55) and (56) that lead to a cap (60), Column 3 Lines 10-18, and by Figure 1 appear to connect to a cord that would go to an outlet.) The gripping means is at a proximal end while the cleaning head is at a distal end (Figure 1). The device further comprises at least one solution storage means (Figure 1 (72)) that contains a cleaning composition for cleaning, and a dispensing means (Figure 1 (71)) mounted in the housing for supplying the cleaning composition (Column 3 Lines 22-32). The cleaning head may be a sponge (Figure 3) so that the cleaning liquid is supplied to a surface that is coterminous (Figure 2) with the head in that the absorbent sponge portions disperse the liquid. The "second" housing is the housing labeled (11) in Figures 1-3 wherein the "first" housing is the liquid supply (Figure 1 (72)). Sawyer also discloses a method for removing soil from a hard surface that contacts the soil with a liquid and cleaning head and imparting ultrasonic energy to it (Column 4 Line 73 to Column 5 Line 18 states that a cleaning composition or detergent is put into contact with a soil, then loosening the soil, and then rinsing the amount with water.) Sawyer does not disclose having a cleaning head surface area greater than  $6.25 \text{ cm}^2$  or having a power output of at least  $0.02 \text{ watts/cm}^3$ .

It would have been obvious to one of ordinary skill in the art to construct a cleaning head for a sonic surface cleaner that is used for a floor to have a cleaning head surface area greater than  $6.25 \text{ cm}^2$  or having a power output of at least  $0.02 \text{ watts/cm}^3$  because it would be desirable to have a larger cleaning surface area to reduce the time it takes to clean an area, to reduce the human effort in cleaning a large surface, and because it is most efficient for cleaning a large area. Furthermore, MPEP 2144.04 IV A states "In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device."

4. Claims 33-35, 39, and 42-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bock, USPN 5,369,831 (herein '831).

'831 discloses a therapeutic ultrasonic toothbrush that comprises a housing (Figure 1), a gripping means (Figure 1 (22)), a cleaning head (Figures 1-3 (32)) that is adapted to be removably mounted to the housing and is capable of being interchangeable (Figure 2; Column 3 Line 6), a transducer means mounted in the housing for oscillating (Figure 1 (28); Column 3 Lines 10-18), and a power supply means which is mounted in the housing (Figure 1 (24)). The gripping means is at a proximal end while the cleaning head is at a distal end (Figures 1-3). The transducer means has an average oscillating frequency of from about

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1000 Hz to about 100 kHz, since ultrasonic refers to subsonic, sonic, or ultrasonic which (from definition previously stated and further, "sonic" is defined as "of or relating to audible sound" according to *The American Heritage® Dictionary of the English Language, Fourth Edition Copyright © 2000 by Houghton Mifflin Company* and that the audible sound range is in a range of 20 Hz to 20 kHz according to <http://www.avroomservice.com/glossary/index.htm>) fall into the range of about 1000 Hz to about 100 kHz (see Column 2 Lines 66-68). The cleaning head is in the form of bristles (Figures 1-3 (34)). The device is adapted to function while at least partially immersed in an aqueous environment since it is in the form of a toothbrush and is used in the oral cavity (Column 5 Lines 59-64). There is a first and second housings, with the transducer means in the second housing, the second housing being more towards the distal end, and the power supply means in its own housing towards the proximal end. '831 does not disclose having a cleaning head surface area greater than 6.25 cm<sup>2</sup>.

It would have been obvious to one of ordinary skill in the art to have a cleaning head surface area greater than 6.25 cm<sup>2</sup>. Applicant has not disclosed that having a cleaning head surface area greater than 6.25 cm<sup>2</sup> provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with cleaning soiled food off of a surface since it cleans soiled food from teeth. Also, MPEP 2144.04 IV A states "In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only



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difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.”

5. Claims 33-35, 39, and 42-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bock, USPN 5,546,624 (herein ‘624).

‘624 discloses a therapeutic ultrasonic toothbrush that comprises a housing (Figure 1), a gripping means (Figure 1 (22)), a cleaning head (Figures 1-3 (32)) that is adapted to be removably mounted to the housing and is capable of being interchangeable (Figure 2; Column 3 Line 6), a transducer means mounted in the housing for oscillating (Figure 1 (28); Column 3 Lines 10-18), and a power supply means which is mounted in the housing (Figure 1 (24)). The frequency is 1.6 MHz (about 100 kHz, see Column 8 Lines 43-46). Further, the transducer means has an average oscillating frequency of from about 1000 Hz to about 100 kHz, since ultrasonic refers to subsonic, sonic, or ultrasonic which (from definitions previously stated) fall into the range of about 1000 Hz to about 100 kHz (see Column 3 Lines 51-55). The gripping means is at a proximal end while the cleaning head is at a distal end (Figures 1-3). The cleaning head is in the form of bristles (Figures 1-3 (34)). The device is adapted to function while at least partially immersed in an aqueous environment since it is in the form of a toothbrush and is used in the oral cavity (Column 5 Lines 59-64). There is a first and second housings, with the transducer means in the second housing, the second housing being more towards the distal end, and the power supply means

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in its own housing towards the proximal end. '624 does not disclose having a cleaning head surface area greater than  $6.25 \text{ cm}^2$ .

It would have been obvious to one of ordinary skill in the art to have a cleaning head surface area greater than  $6.25 \text{ cm}^2$ . Applicant has not disclosed that having a cleaning head surface area greater than  $6.25 \text{ cm}^2$  provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with cleaning soiled food off of a surface since it cleans soiled food from teeth. Also, MPEP 2144.04 IV A states "In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device."

6. Claims 33-37, 39, 42-49, 51, 52, 55, and 56 are rejected under 35 U.S.C. 103(a) as obvious over Hoffman, USPN 5,890,249 in view of Sawyer, USPN 3,357,033.

Hoffman discloses a multi-purpose vibration cleaning device that comprises a housing (Figures 1-5), a gripping means (Figure 1 (12)), a cleaning head (Figures 1-3 (26) or (24)) that is adapted to be removably mounted to the housing and is capable of being interchangeable (Column 2 Lines 56-57), a transducer means mounted in the housing for oscillating (Column 2 Lines 9-11

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disclose that the power supply is connected to the vibration generator, and through that the type of energy must be converted or “transduced” from the battery to the output vibrations), and a power supply means which is mounted in the housing (Figure 1 (17)). The gripping means is at a proximal end while the cleaning head is at a distal end (Figure 1). The device further comprises a solution storage means for containing a cleaning composition and a dispensing means (Column 2 Lines 56-63.) The cleaning composition is lye (Column 2 Line 59) wherein lye is a process aid, antibacterial agent, a surfactant, “perfume”, anti-microbial agent, etc. The cleaning head may take the form of a brush, cloth, or towel (Column 2 Lines 45-55, Column 3 Lines 10-19) and can be at least partially immersed in an aqueous environment (Column 2 Lines 12-13). The “second” housing is the housing mentioned above wherein the “first” housing is the housing for the removable cleaning head. Hoffman does not disclose having a cleaning head surface area greater than  $6.25 \text{ cm}^2$  or that the vibration is has an average oscillating frequency from about 1000 Hz to 100 kHz.

Sawyer discloses all elements above, including the teaching that a frequency in the lower sonic range, which falls into the range of 1000 Hz to 100kHz, is a known and beneficial means for cleaning objects.

It would have been obvious to one of ordinary skill in the art to construct a cleaning head for a sonic surface cleaner that is used for a cleaning an oven, polishing furniture, cleaning a bathroom (Column 3 Lines 19-29) to have a cleaning head surface area greater than  $6.25 \text{ cm}^2$  because it would be desirable to have a larger cleaning surface area to reduce the time it takes to clean an

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area, to reduce the human effort in cleaning a large surface, and because it is most efficient for cleaning a large area. Further, it would have been obvious for one of ordinary skill in the art to modify Hoffman by using a frequency from about 1000 Hz to 100 kHz rather than vibration for cleaning objects. Also, MPEP 2144.04 IV A states "In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device."

7. Claims 53, 54, 57, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawyer, USPN 3,357,033.

Sawyer discloses all elements regarding the device as stated above however does not disclose instructions for using the product.

It would have been obvious for one of ordinary skill in the art to provide operating instructions as it well known in marketing and business to provide instructions for use of a product to protect the buyer and user.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C Cole whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

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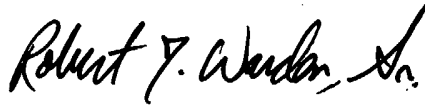
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J Warden can be reached on (571) 272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LCC

10 December 2004



ROBERT J. WARDEN, SR.  
SUPERVISORY PATENT EXAMINER  
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